



QMI 529LS

January 2006

PRODUCT DESCRIPTION

The QMI 529LS is a silver-filled, no bleed conductive die attach adhesive specifically recommended for Ag/Cu and bare Cu lead frame applications. Its unique application is designed to make the material hydrophobic and at the same time providing stability at high operating temperatures without deterioration of its properties. This special formulation helps it produce void free bondlines with excellent interfacial adhesion strength. This material has also been tested to withstand multiple exposures to 260°C reflow.

“This product and its use may be covered by patent 5,717,034 and by one or more pending patent applications.”

TYPICAL PROPERTIES

	QMI 529LS	Test Method
Viscosity 5 rpm @ 25°C, Cp	7,000-10,000	TM 547
Thixotropic Index (0.5/5 rpm)	3.0-5.0	TM 547
Pot Life @ 25°C, hours	24	TM 592
Shelf life @ -40°C, months	6	TM 589
Specific Gravity @ 25°C, (g/cc)	3.65	TM 461
RT Die Shear *(150mm ² die on Ag/Cu	25-35	TM598
Extractable Ion Content, ppm Na+, K+,Cl-,F-	≤20	TM449
Volume Resistivity, ohm-cm	0.005	TM 572
Glass Transition Temperature, °C	55	TM 433
Coefficient of Thermal Expansion (TMA) Below Tg ppm/°C	91	TM 433
Above Tg, ppm/°C	136	

The above characteristics and values represent typical material properties only and are not to be used for material specification purposes. To generate a specification for this product, please contact our Quality Manager and request a copy of the current stock specification.

STORAGE AND HANDLING

QMI 529LS is supplied in syringes and should be stored at -40°C. Please review Henkel’s current Die Attach Handling Procedure for additional details on thawing and usage.

DISPENSING AND BONDLINE CONTROL

QMI 529LS adhesion was tested using a 1-mil bond line thickness with at 150-Sq mil die. Since thinner bondlines increase stress, please call you’re nearest Henkel Corporation Technical Service Engineer for consultation in cases where bondlines less than 1 mil are desired. Optimization of die bond

parameters is strongly recommended to consistently meet target bondline thickness.

TYPICAL CURING CONDITIONS

QMI 529LS can be cured using a variety of times and temperatures, depending on the specific cure equipment. It can be cured in conventional ovens. The following cure schedule is an example only.

Oven cure: 30-60 minutes @ 170-200°C

For cure schedule recommendations, please contact your nearest Henkel Corporation Materials representative.

GENERAL INFORMATION

This product is not recommended for use in pure oxygen and/or oxygen rich systems and should not be selected for use with chlorine or other strong oxidizing materials unless otherwise specifically stated.

For safe handling information on this product, consult the Material Safety Data Sheet, (MSDS).

NOTE

The data contained herein are furnished for information only and are believed to be reliable. We cannot assume responsibility for the results obtained by others over whose methods we have no control. It is the user’s responsibility to determine suitability for the user’s purpose of any production methods mentioned herein and to adopt such precautions as may be advisable for the protection of property and of persons against any hazards that may be involved in the handling and use thereof. In light of the foregoing, **Henkel Corporation specifically disclaims all warranties expressed or implied, including warranties of merchantability or fitness for a particular purpose, arising from sale or use of Henkel Corporation’s products. Henkel Corporation specifically disclaims any liability for consequential or incidental damages of any kind, including lost profits.** The discussion herein of various processes or compositions is not to be interpreted as representation that they are free from domination of patents owned by others or as a license under any Henkel Corporation patents that may cover such processes or compositions. We recommend that each prospective user test his proposed application before repetitive use, using this data as a guide. This product may be covered by one or more United States or foreign patents or patent application.

NOT FOR PRODUCT SPECIFICATIONS
THE TECHNICAL INFORMATION CONTAINED HEREIN IS INTENDED AS REFERENCE ONLY. PLEASE CONTACT TECHNICAL SERVICE FOR ASSISTANCE AND RECOMMENDATIONS ON SPECIFICATIONS FOR THIS PRODUCT.

Americas

Henkel Corporation
15350 Barranca Parkway
Irvine, CA 92618
949-789-2500

Europe

Henkel Loctite Adhesives Ltd.
Kelsey House, Wood Lane End
Hemel Hempstead
Hertfordshire HP2 4RQ
+44.1442.323.3233

Asia

Henkel Loctite Hong Kong Ltd.
18/F Island Place Tower
510 King’s Road, North Point
Hong Kong
+852.2233.0000